ACKNOWLEDGEMENT

Pleasure in the job puts perfection in the work: Aristotle

As I stand at the threshold of a new beginning, I can see all the bygone years tinted with different hues. The special shades come from all those who were associated with me during the tenure of my doctoral research. This is an opportune moment to thank one and all who have stood by me through the infinitude of phases in my student life. I would like to acknowledge and express deep gratitude to many people who have supported, pushed and nudged me during these years of research.

A journey is easier when you travel together. It is this spirit of team work and perfection that has been inculcated in me by my supervisor Prof. B. N. Mallick. His expert guidance has enriched my interest in Neuroscience. His encouragement, sustaining enthusiasm and advice has envisaged the elite world of research to me. I owe him my sincerest thanks for bringing out the best in me and shaping me into a fine researcher. He motivated me to convert my abilities into a potential that enabled me to rise high and compete with the best.

My wholehearted thanks to Prof. R.N.K. Bamezai, Dean, School of Life Sciences, JNU and all the previous Deans for the support and help extended during their tenure.

I am greatly obliged to Dr. Chinmay Mukhopadhyay, SCMM, for helping me with the molecular biology aspect of my study and allowing me to use the facilities in his laboratory. My sincere gratitude is due towards Dr. S. Goswami, SLS, JNU and Dr. Debi Sarkar, DU, South Campus for their guidance during my initial efforts regarding cell culture experiments. I profusely thank Dr. Pavan Malhotra, ICGEB and Dr. Tapan Chaudary, IIT, Delhi for their excellent and expert advice in various biochemical aspects of my research.

A word of thanks is due to Mr. Tyagi and the staff of the animal house for ensuring a steady supply and maintenance of the experimental animals. I also want to take this opportunity to appreciate the technical help provided by Mr. Alexander, Mr. Khan, Mr. Sharma and Mr. Mishra of the CIF. I would like to add a word of appreciation for Mr. Baljeet Singh for all the handy glassware and chromatographic columns he designed for my work. I also thank the office staff for their administrative help. A sincere laboratory assistance of Man Singh, Ram Kripal, Devraj, Shankar and Anwar is greatly acknowledged.

The financial assistance in the form of the fellowship and contingent money provided by CSIR is deeply acknowledged. My sincere thanks to UGC, DBT, DST and ICMR for providing the financial assistance for the research work through projects to Prof. Mallick.

There is a strong temptation to individually acknowledge everyone who has helped me to reach this point. Since such a list would be manifold too long, it is inevitable that many people would be unintentionally omitted. I would thus like to
thank everyone who, knowingly or otherwise, has provided support, encouragement and assistance along the way. However, there are some who deserve a more personal note of gratitude.

Honest and sincere friends are hard to come by and I am fortunate to have acquired the wonderful friendship of Dheeraj and Dinesh over the course of these years. The time spent with them is like pearls in the casket of my memory and would be cherished forever. Loving thanks to my friends Anupama, Gopal, Purnima and Mukesh for their support and for adding charm to my research career. A warm thanks to Harinder and Sirisha for their enthusiastic zeal to lend a hand at the times of need.

I am grateful to my seniors, Dr. Stephen, Dr. Satvinder, Dr. Sushil and Dr. Sudipta for their invaluable assistance and warmth whenever I needed. Fond memories of Vikas, Parul and late Md Faisal shall always remain close to my heart. The association with my other labmates Ganesh, Dola, Tapesh, Gitanjali, Manej, Babita and Pynskhem was gratifying. I would like to thank Sudipta and Sunil, SCMM, who helped me a lot during the latter part of my research work.

Personal debts can never be adequately acknowledged. It is to my parents that I owe my research career, without whose encouragement it would have been impossible to achieve so much. For them it was a labor of love and any words I might use to express my indebtedness to them would be inadequate. I thank them for standing by me in every decision I made. My loving thanks to my brother, Vaibhav, who has always been there for me through thick and thin and helped me in more ways than one.

I am very thankful to my parents-in-law who have been very supportive and caring. Words fail me in expressing my gratefulness to them. My brothers-in-law, Sudhanshu, Himanshu and Rupesh deserve a special note of gratitude for being very supportive and affectionate.

Saving the most important for the last, I want to thank my husband, Sushil, for allowing me the time and space to follow my dreams and ideas. I am indebted to him for his unconditional love and support.

Vibha Madan